DP-304139

HORIZONTALLY STRUCTURED MANUFACTURING PROCESS MODELING FOR: ALTERNATE OPERATIONS, LARGE PARTS AND CHARTED PARTS

ABSTRACT OF THE DISCLOSURE

Disclosed is a method and a part manufactured thereby, of horizontally structured CAD/CAM manufacturing for alternate operations, comprising: selecting a blank for machining an actual part; establishing a coordinate system; creating a master process model, and generating machining instructions to create an actual part by machining a manufacturing feature into the blank. Also included in the method is: generating an alternate master process model as an extracted 3-D model from the master process model; virtual machining of the 3-D model; and generating machining instructions to create the actual part. The method also includes: generating a junior master process model comprising: a 3-D model generated from the master process model; virtual machining of the 3-D model; and finally, generating machining instructions to create the actual part. The method further includes generating a subsequent master process model comprising; another virtual blank; a copy of the manufacturing features of the master process model; virtual machining of the other virtual blank with a manufacturing feature uncommon to the master process model; and generating machining instructions to create the actual part by machining the blank. Also disclosed is a storage medium encoded with a machine-readable computer program code and a computer data signal for horizontally structured CAD/CAM manufacturing. The storage medium including instructions for causing a computer to implement; and the computer data signal comprising code configured to cause a processor to implement; the method of horizontally structured CAD/CAM modeling and manufacturing for alternate operations, large parts, and charted parts.